

HOBBS OCD

JUL 09 2019

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**CENTENNIAL RESOURCE
DEVELOPMENT, LLC**

LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)

NE SE SEC. 1 T23S R34E

DUCK HUNT 1 STATE COM #301H

20 May, 2019

Survey: FINAL SURVEYS





Project: LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)
Site: NE SE SEC. 1 T23S R34E
Well: DUCK HUNT 1 STATE COM #301H
Wellbore: JOB # 2019-244-650
Design: FINAL SURVEYS



SECTION DETAILS

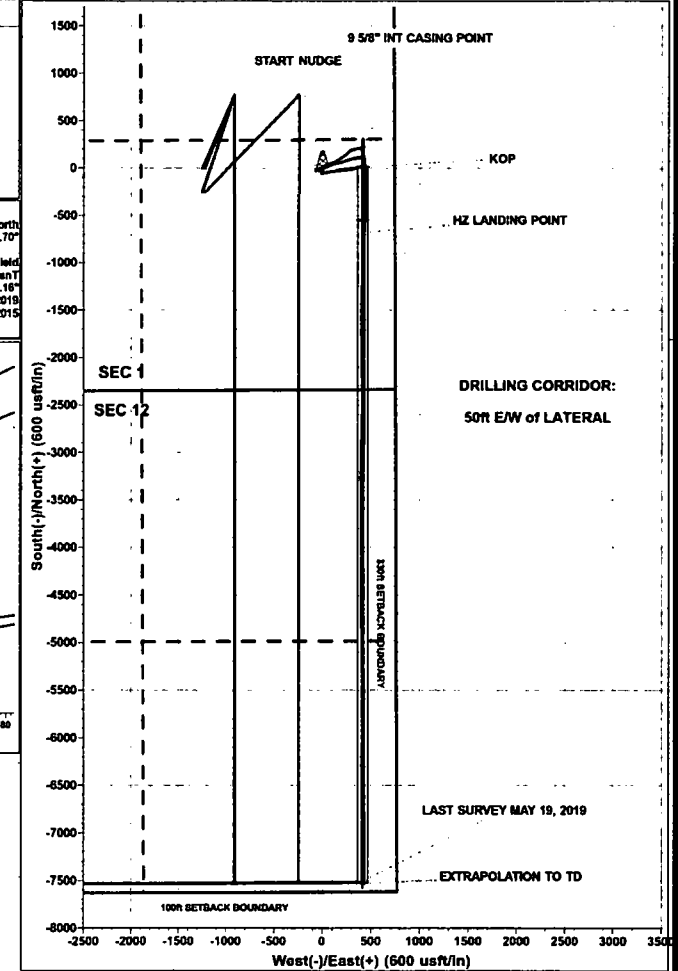
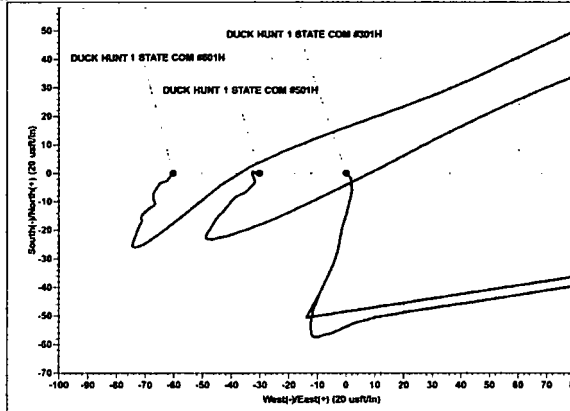
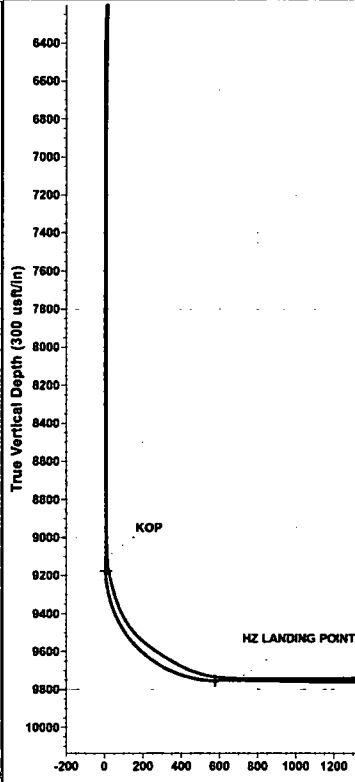
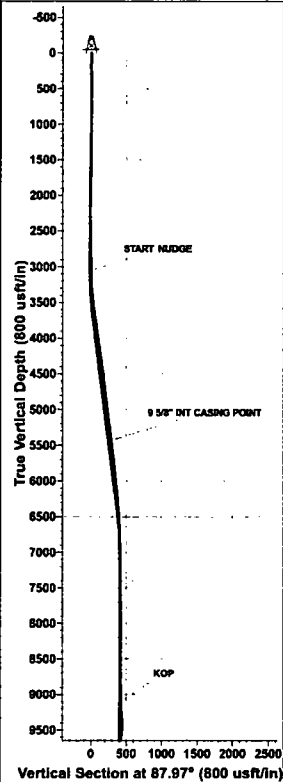
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Annotation
1890.50	2.99	202.75	1899.87	-35.97	-6.32	0.00	0.00	39.97	TIE ON TO SURVEYS
1812.50	3.30	207.89	1811.89	-41.92	-9.15	0.40	36.57	41.38	PROJECTION TO TD - SURFACE
2150.00	0.00	0.00	2149.00	-50.53	-13.69	0.98	180.00	49.70	EOD TO VERTICAL
3001.00	0.00	0.00	3000.00	-50.53	-13.69	0.00	0.00	49.70	START NUDDGE (11°/100ft BUR)
3733.97	7.33	81.29	3730.98	-43.44	32.59	1.00	81.29	45.18	EOB TO 7.33° INC
6367.54	7.33	81.29	6343.02	7.46	364.70	0.00	0.00	12.56	END OF TANGENT
7100.51	0.00	0.00	7074.00	14.55	410.98	1.00	180.00	8.02	EOD TO VERTICAL
9204.60	0.00	0.00	9178.09	14.55	410.98	0.00	0.00	8.02	KOP (10°/100ft BUR)
10095.61	89.10	179.98	9750.98	-549.41	411.18	10.00	179.98	571.15	PP/FTP: 1790ft FSL & 330ft FEL of Sec 1
17068.35	89.10	179.98	9860.50	-7521.30	413.28	0.00	94.40	7532.64	LTP/BHL: 100ft FSL & 330ft FEL of Sec 12

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
KOP - DUCK HUNT 1 STATE COM #301H	9178.09	14.55	410.98	11740242.40	2129442.77	32.332855	-103.416287
LTP/BHL - DUCK HUNT 1 STATE COM #301H	9860.50	-7521.30	413.28	11732708.38	2129556.39	32.312142	-103.416279
PP/FTP - DUCK HUNT 1 STATE COM #301H	9750.98	-549.41	411.18	11739678.57	2129451.30	32.331305	-103.416268



Azimuths to True North
Magnetic North: 8.70°
Magnetic Field
Strength: 47535.5nT
Dip Angle: 60.16°
Date: 19/03/2019
Model: IGRF2015



LAST SURVEY MAY 19, 2019

EXTRAPOLATION TO TD

Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well DUCK HUNT 1 STATE COM #301H
Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Site:	NE SE SEC. 1 T23S R34E	MD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Well:	DUCK HUNT 1 STATE COM #301H	North Reference:	True
Wellbore:	JOB # 2019-244-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)	Using geodetic scale factor	

Site NE SE SEC. 1 T23S R34E

Site Position:		Northing:	11,740,221.78usft	Latitude:	32.332815
From:	Map	Easting:	2,129,032.10usft	Longitude:	-103.417617
Position Uncertainty:	0.00 usft	Slot Radius:	1.10ft	Grid Convergence:	0.85 °

Well DUCK HUNT 1 STATE COM #301H

Well Position	+N/-S	0.00 usft	Northing:	11,740,221.78 usft	Latitude:	32.332815
	+E/-W	0.00 usft	Easting:	2,129,032.10 usft	Longitude:	-103.417617
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,365.50usft

Wellbore JOB # 2019-244-650

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	19/03/2019	6.70	60.16	47,839

Design FINAL SURVEYS

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
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Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	176.85

Survey Program Date 20/05/2019

From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
26.50	17,029.00	FINAL SURVEYS (JOB # 2019-244-650)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	3,392.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.00	0.00	26.50	3,365.50	0.00	0.00	0.00	0.00	0.00	0.00
144.50	0.50	245.75	144.50	3,247.50	-0.21	-0.47	0.19	0.42	0.42	0.00
203.50	0.50	117.75	203.50	3,188.50	-0.44	-0.48	0.41	1.52	0.00	-216.95
288.50	0.40	91.75	288.49	3,103.51	-0.62	0.15	0.63	0.26	-0.12	-30.59
372.50	0.50	119.75	372.49	3,019.51	-0.81	0.76	0.85	0.28	0.12	33.33
521.50	0.60	156.75	521.49	2,870.51	-1.85	1.63	1.94	0.24	0.07	24.83
611.50	0.80	187.75	611.48	2,780.52	-2.90	1.73	3.00	0.47	0.22	34.44
701.50	1.10	167.75	701.47	2,690.53	-4.37	1.83	4.47	0.49	0.33	-22.22
791.50	0.90	183.75	791.45	2,600.55	-5.92	1.97	6.02	0.38	-0.22	17.78
881.50	1.40	190.75	881.44	2,510.56	-7.71	1.72	7.79	0.58	0.56	7.78
971.50	1.40	198.75	971.41	2,420.59	-9.83	1.16	9.88	0.22	0.00	8.89
1,061.50	1.70	186.75	1,061.38	2,330.62	-12.19	0.65	12.21	0.49	0.33	-13.33

Survey Report



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Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Site:	NE SE SEC. 1 T23S R34E	MD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Well:	DUCK HUNT 1 STATE COM #301H	North Reference:	True
Wellbore:	JOB # 2019-244-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,151.50	2.00	200.75	1,151.33	2,240.67	-14.99	-0.06	14.96	0.60	0.33	15.56
1,241.50	1.80	195.75	1,241.28	2,150.72	-17.82	-1.00	17.74	0.29	-0.22	-5.56
1,331.50	2.20	189.75	1,331.22	2,060.78	-20.88	-1.68	20.76	0.50	0.44	-6.67
1,421.50	2.30	191.75	1,421.16	1,970.84	-24.35	-2.34	24.19	0.14	0.11	2.22
1,511.50	2.40	191.75	1,511.08	1,880.92	-27.96	-3.09	27.75	0.11	0.11	0.00
1,600.50	2.90	205.75	1,599.99	1,792.01	-31.82	-4.45	31.52	0.92	0.56	15.73
1,690.50	2.90	202.75	1,689.87	1,702.13	-35.97	-6.32	35.57	0.17	0.00	-3.33
1,812.50	3.30	207.75	1,811.69	1,580.31	-41.92	-9.15	41.36	0.40	0.33	4.10
1,923.00	3.39	195.43	1,922.00	1,470.00	-47.88	-11.50	47.18	0.65	0.08	-11.15
2,018.00	2.70	182.60	2,016.87	1,375.13	-52.83	-12.35	52.07	1.02	-0.73	-13.51
2,112.00	1.39	160.53	2,110.81	1,281.19	-56.11	-12.07	55.37	1.60	-1.39	-23.48
2,206.00	0.39	88.72	2,204.80	1,187.20	-57.18	-11.37	56.47	1.41	-1.06	-76.39
2,300.00	0.34	99.30	2,298.80	1,093.20	-57.22	-10.77	56.54	0.09	-0.05	11.26
2,394.00	0.46	92.85	2,392.80	999.20	-57.28	-10.12	56.64	0.14	0.13	-6.86
2,489.00	0.48	67.74	2,487.79	904.21	-57.15	-9.37	56.55	0.22	0.02	-26.43
2,583.00	0.55	70.59	2,581.79	810.21	-56.85	-8.58	56.30	0.08	0.07	3.03
2,677.00	0.61	73.76	2,675.78	716.22	-56.56	-7.68	56.06	0.07	0.06	3.37
2,771.00	0.72	81.26	2,769.78	622.22	-56.33	-6.61	55.89	0.15	0.12	7.98
2,865.00	0.75	68.17	2,863.77	528.23	-56.01	-5.46	55.63	0.18	0.03	-13.93
2,959.00	0.78	70.69	2,957.76	434.24	-55.57	-4.28	55.26	0.05	0.03	2.68
START NUDGE										
3,053.00	0.97	66.97	3,051.75	340.25	-55.05	-2.95	54.81	0.21	0.20	-3.96
3,148.00	1.81	61.96	3,146.72	245.28	-54.03	-0.88	53.90	0.89	0.88	-5.27
3,242.00	3.61	69.01	3,240.61	151.39	-52.27	3.19	52.37	1.94	1.91	7.50
3,336.00	5.84	79.13	3,334.29	57.71	-50.31	10.65	50.82	2.52	2.37	10.77
3,430.00	6.92	80.76	3,427.71	-35.71	-48.50	20.94	49.58	1.16	1.15	1.73
3,524.00	7.31	81.33	3,520.98	-128.98	-46.69	32.44	48.40	0.42	0.41	0.61
3,618.00	7.65	82.21	3,614.18	-222.18	-44.94	44.55	47.32	0.38	0.36	0.94
3,712.00	8.08	80.79	3,707.30	-315.30	-43.03	57.27	46.11	0.50	0.46	-1.51
3,806.00	8.62	80.34	3,800.30	-408.30	-40.80	70.74	44.61	0.58	0.57	-0.48
3,900.00	8.68	82.11	3,893.23	-501.23	-38.64	84.71	43.23	0.29	0.06	1.88
3,995.00	8.61	81.07	3,987.15	-595.15	-36.55	98.83	41.92	0.18	-0.07	-1.09
4,089.00	8.16	81.37	4,080.15	-688.15	-34.46	112.38	40.57	0.48	-0.48	0.32
4,183.00	8.02	82.07	4,173.21	-781.21	-32.55	125.47	39.39	0.18	-0.15	0.74
4,277.00	8.05	82.18	4,266.29	-874.29	-30.75	138.48	38.30	0.04	0.03	0.12
4,371.00	7.77	81.52	4,359.39	-967.39	-28.92	151.29	37.18	0.31	-0.30	-0.70
4,465.00	7.60	82.53	4,452.55	-1,060.55	-27.17	163.74	36.12	0.23	-0.18	1.07
4,559.00	7.46	82.79	4,545.74	-1,153.74	-25.60	175.96	35.22	0.15	-0.15	0.28
4,654.00	7.37	83.16	4,639.94	-1,247.94	-24.10	188.12	34.39	0.11	-0.09	0.39
4,748.00	7.27	83.26	4,733.18	-1,341.18	-22.69	200.02	33.62	0.11	-0.11	0.11
4,841.00	7.03	83.39	4,825.46	-1,433.46	-21.34	211.51	32.91	0.26	-0.26	0.14
4,936.00	6.79	83.08	4,919.77	-1,527.77	-19.99	222.86	32.19	0.26	-0.25	-0.33
5,030.00	6.73	85.27	5,013.11	-1,621.11	-18.87	233.87	31.67	0.28	-0.06	2.33
5,124.00	6.97	85.34	5,106.44	-1,714.44	-17.95	245.04	31.37	0.26	0.26	0.07
5,218.00	7.38	85.22	5,199.70	-1,807.70	-16.99	256.74	31.05	0.44	0.44	-0.13
5,312.00	7.32	86.38	5,292.93	-1,900.93	-16.10	268.74	30.82	0.17	-0.06	1.23
5,390.00	7.30	86.98	5,370.30	-1,978.30	-15.53	278.64	30.79	0.10	-0.03	0.77
9 5/8" INT CASING POINT										
5,449.00	7.20	86.42	5,428.83	-2,036.83	-15.10	286.08	30.77	0.21	-0.17	-0.95
5,514.00	7.09	85.79	5,493.32	-2,101.32	-14.55	294.14	30.67	0.21	-0.17	-0.97
5,577.00	7.00	83.39	5,555.85	-2,163.85	-13.83	301.83	30.37	0.49	-0.14	-3.81
5,671.00	6.93	68.19	5,649.16	-2,257.16	-11.06	312.79	28.20	1.96	-0.07	-16.17
5,765.00	6.77	68.62	5,742.49	-2,350.49	-6.93	323.21	24.66	0.18	-0.17	0.46

Survey Report



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Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Site:	NE SE SEC. 1 T23S R34E	MD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Well:	DUCK HUNT 1 STATE COM #301H	North Reference:	True
Wellbore:	JOB # 2019-244-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,859.00	6.41	67.42	5,835.87	-2,443.87	-2.90	333.22	21.18	0.41	-0.38	-1.28
5,953.00	5.98	67.60	5,929.32	-2,537.32	0.98	342.59	17.81	0.46	-0.46	0.19
6,047.00	5.89	71.03	6,022.82	-2,630.82	4.42	351.68	14.88	0.39	-0.10	3.65
6,141.00	5.41	72.48	6,116.36	-2,724.36	7.32	360.46	12.47	0.53	-0.51	1.54
6,235.00	5.51	69.53	6,209.93	-2,817.93	10.23	368.92	10.03	0.32	0.11	-3.14
6,330.00	5.37	66.80	6,304.51	-2,912.51	13.58	377.28	7.14	0.31	-0.15	-2.87
6,424.00	4.71	80.24	6,398.14	-3,006.14	15.96	385.12	5.19	1.43	-0.70	14.30
6,518.00	3.51	84.56	6,491.90	-3,099.90	16.89	391.79	4.63	1.32	-1.28	4.60
6,613.00	3.53	81.90	6,586.72	-3,194.72	17.58	397.58	4.26	0.17	0.02	-2.80
6,706.00	2.30	102.67	6,679.60	-3,287.60	17.57	402.24	4.52	1.72	-1.32	22.33
6,801.00	1.19	93.14	6,774.56	-3,382.56	17.10	405.08	5.15	1.20	-1.17	-10.03
6,895.00	1.09	78.76	6,868.54	-3,476.54	17.22	406.93	5.13	0.32	-0.11	-15.30
6,989.00	1.04	73.64	6,962.52	-3,570.52	17.64	408.63	4.81	0.11	-0.05	-5.45
7,084.00	0.91	76.92	7,057.51	-3,665.51	18.05	410.19	4.48	0.15	-0.14	3.45
7,178.00	0.73	80.42	7,151.50	-3,759.50	18.32	411.51	4.29	0.20	-0.19	3.72
7,272.00	0.77	65.89	7,245.49	-3,853.49	18.68	412.68	3.99	0.21	0.04	-15.46
7,366.00	0.71	74.95	7,339.48	-3,947.48	19.09	413.82	3.65	0.14	-0.06	9.64
7,461.00	0.85	92.20	7,434.47	-4,042.47	19.21	415.09	3.59	0.29	0.15	18.16
7,555.00	0.79	72.67	7,528.47	-4,136.47	19.38	416.40	3.50	0.30	-0.06	-20.78
7,650.00	0.55	75.79	7,623.46	-4,231.46	19.68	417.47	3.25	0.26	-0.25	3.28
7,744.00	0.21	66.25	7,717.46	-4,325.46	19.86	418.07	3.10	0.37	-0.36	-10.15
7,839.00	0.25	130.31	7,812.46	-4,420.46	19.80	418.38	3.18	0.26	0.04	67.43
7,933.00	0.25	74.64	7,906.45	-4,514.45	19.72	418.74	3.28	0.25	0.00	-59.22
8,027.00	0.13	159.59	8,000.45	-4,608.45	19.68	418.97	3.34	0.29	-0.13	90.37
8,121.00	0.21	200.25	8,094.45	-4,702.45	19.41	418.95	3.60	0.15	0.09	43.26
8,215.00	0.35	221.85	8,188.45	-4,796.45	19.04	418.70	3.96	0.18	0.15	22.98
8,309.00	0.43	229.21	8,282.45	-4,890.45	18.60	418.24	4.38	0.10	0.09	7.83
8,403.00	0.33	186.14	8,376.45	-4,984.45	18.10	417.94	4.86	0.31	-0.11	-45.82
8,497.00	0.33	181.64	8,470.45	-5,078.45	17.56	417.91	5.40	0.03	0.00	-4.79
8,592.00	0.51	228.51	8,565.44	-5,173.44	17.00	417.58	5.93	0.39	0.19	49.34
8,686.00	0.51	200.33	8,659.44	-5,267.44	16.33	417.12	6.58	0.26	0.00	-29.98
8,780.00	0.21	135.48	8,753.44	-5,361.44	15.82	417.10	7.09	0.49	-0.32	-68.99
8,874.00	0.77	161.39	8,847.44	-5,455.44	15.10	417.42	7.83	0.63	0.60	27.56
8,968.00	1.06	152.64	8,941.42	-5,549.42	13.73	418.02	9.23	0.34	0.31	-9.31
9,062.00	1.26	131.28	9,035.41	-5,643.41	12.27	419.20	10.75	0.50	0.21	-22.72
9,073.00	1.40	139.30	9,046.40	-5,654.40	12.09	419.38	10.94	2.11	1.27	72.91
KOP										
9,126.00	3.15	150.37	9,099.36	-5,707.36	10.33	420.52	12.75	3.38	3.29	20.89
9,136.00	3.48	151.21	9,109.34	-5,717.34	9.83	420.80	13.27	3.38	3.35	8.36
9,183.00	8.00	157.95	9,156.09	-5,764.09	5.55	422.72	17.65	9.71	9.62	14.34
9,230.00	12.78	157.90	9,202.31	-5,810.31	-2.31	425.90	25.67	10.17	10.17	-0.11
9,277.00	15.50	158.93	9,247.88	-5,855.88	-12.98	430.12	36.56	5.81	5.79	2.19
9,324.00	16.76	163.98	9,293.03	-5,901.03	-25.36	434.24	49.15	4.01	2.68	10.74
9,371.00	19.75	169.04	9,337.67	-5,945.67	-39.67	437.63	63.62	7.19	6.36	10.77
9,419.00	23.77	173.26	9,382.24	-5,990.24	-57.25	440.30	81.32	8.98	8.37	8.79
9,466.00	29.28	177.79	9,424.28	-6,032.28	-78.16	441.86	102.28	12.48	11.72	9.64
9,513.00	34.81	181.50	9,464.11	-6,072.11	-103.08	441.95	127.17	12.48	11.77	7.89
9,560.00	41.05	181.66	9,501.16	-6,109.16	-131.94	441.15	155.95	13.28	13.28	0.34
9,607.00	47.41	181.95	9,534.82	-6,142.82	-164.69	440.12	188.59	13.54	13.53	0.62
9,654.00	51.72	182.42	9,565.30	-6,173.30	-200.43	438.75	224.20	9.20	9.17	1.00
9,701.00	54.47	182.48	9,593.52	-6,201.52	-237.98	437.14	261.60	5.85	5.85	0.13
9,748.00	57.54	182.44	9,619.79	-6,227.79	-276.90	435.47	300.38	6.53	6.53	-0.09
9,795.00	60.32	182.31	9,644.05	-6,252.05	-317.12	433.80	340.45	5.92	5.91	-0.28

Survey Report



Company: CENTENNIAL RESOURCE DEVELOPMENT
Project: LEA COUNTY, NM (NAD 83 - UTM Z
Site: NE SE SEC. 1 T23S R34E
Well: DUCK HUNT 1 STATE COM #301H
Wellbore: JOB # 2019-244-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well DUCK HUNT 1 STATE COM #301H
TVD Reference: KB 26.5' @ 3392.00usft (H&P 650)
MD Reference: KB 26.5' @ 3392.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,842.00	62.39	182.72	9,666.58	-6,274.58	-358.33	431.99	381.49	4.47	4.40	0.87
9,889.00	65.21	182.96	9,687.33	-6,295.33	-400.44	429.90	423.43	6.02	6.00	0.51
9,936.00	70.20	182.44	9,705.15	-6,313.15	-443.87	427.86	466.67	10.67	10.62	-1.11
9,983.00	75.56	181.77	9,718.98	-6,326.98	-488.74	426.21	511.39	11.49	11.40	-1.43
10,030.00	79.52	181.24	9,729.12	-6,337.12	-534.61	425.01	557.12	8.50	8.43	-1.13
10,077.00	82.43	180.75	9,736.49	-6,344.49	-581.01	424.20	603.41	6.28	6.19	-1.04
10,124.00	84.84	180.15	9,741.70	-6,349.70	-627.72	423.84	650.02	5.28	5.13	-1.28
10,171.00	87.78	180.94	9,744.73	-6,352.73	-674.61	423.39	696.82	6.48	6.26	1.68
HZ LANDING POINT										
10,177.00	87.94	180.89	9,744.95	-6,352.95	-680.61	423.29	702.81	2.81	2.68	-0.85
10,218.00	89.04	180.54	9,746.03	-6,354.03	-721.59	422.78	743.70	2.81	2.68	-0.85
10,265.00	90.56	179.94	9,746.19	-6,354.19	-768.59	422.58	790.61	3.48	3.23	-1.28
10,291.00	90.81	180.05	9,745.88	-6,353.88	-794.58	422.59	816.57	1.05	0.96	0.42
10,385.00	89.99	181.59	9,745.23	-6,353.23	-888.57	421.24	910.34	1.86	-0.87	1.64
10,479.00	90.41	182.14	9,744.90	-6,352.90	-982.52	418.18	1,003.98	0.74	0.45	0.59
10,573.00	90.32	181.75	9,744.30	-6,352.30	-1,076.46	414.99	1,097.61	0.43	-0.10	-0.41
10,667.00	90.39	181.46	9,743.72	-6,351.72	-1,170.42	412.36	1,191.28	0.32	0.07	-0.31
10,761.00	90.13	181.72	9,743.29	-6,351.29	-1,264.39	409.75	1,284.96	0.39	-0.28	0.28
10,855.00	90.22	181.66	9,743.00	-6,351.00	-1,358.34	406.98	1,378.63	0.12	0.10	-0.06
10,949.00	90.46	181.68	9,742.45	-6,350.45	-1,452.30	404.24	1,472.29	0.26	0.26	0.02
11,043.00	91.85	179.42	9,740.55	-6,348.55	-1,546.27	403.34	1,566.07	2.82	1.48	-2.40
11,137.00	91.71	177.34	9,737.63	-6,345.63	-1,640.18	405.99	1,659.99	2.22	-0.15	-2.21
11,232.00	91.88	176.94	9,734.66	-6,342.66	-1,735.02	410.73	1,754.94	0.46	0.18	-0.42
11,324.00	91.15	176.25	9,732.22	-6,340.22	-1,826.82	416.19	1,846.90	1.09	-0.79	-0.75
11,419.00	91.27	179.28	9,730.22	-6,338.22	-1,921.72	419.90	1,941.86	3.19	0.13	3.19
11,514.00	90.57	178.59	9,728.69	-6,336.69	-2,016.69	421.66	2,036.78	1.03	-0.74	-0.73
11,608.00	89.68	179.48	9,728.49	-6,336.49	-2,110.67	423.25	2,130.71	1.34	-0.95	0.95
11,702.00	89.17	179.54	9,729.43	-6,337.43	-2,204.66	424.05	2,224.61	0.55	-0.54	0.06
11,796.00	89.64	179.50	9,730.41	-6,338.41	-2,298.65	424.84	2,318.50	0.50	0.50	-0.04
11,890.00	89.40	179.05	9,731.19	-6,339.19	-2,392.64	426.03	2,412.41	0.54	-0.26	-0.48
11,984.00	89.71	179.10	9,731.92	-6,339.92	-2,486.63	427.54	2,506.34	0.33	0.33	0.05
12,078.00	89.20	178.92	9,732.82	-6,340.82	-2,580.61	429.17	2,600.27	0.58	-0.54	-0.19
12,172.00	89.08	181.98	9,734.23	-6,342.23	-2,674.59	428.43	2,694.06	3.26	-0.13	3.26
12,266.00	89.41	181.55	9,735.47	-6,343.47	-2,768.53	425.53	2,787.71	0.58	0.35	-0.46
12,360.00	89.34	181.08	9,736.49	-6,344.49	-2,862.50	423.38	2,881.42	0.51	-0.07	-0.50
12,455.00	89.30	181.41	9,737.62	-6,345.62	-2,957.47	421.31	2,976.13	0.35	-0.04	0.35
12,549.00	88.80	180.79	9,739.18	-6,347.18	-3,051.44	419.51	3,069.86	0.85	-0.53	-0.66
12,643.00	88.49	181.61	9,741.40	-6,349.40	-3,145.39	417.54	3,163.56	0.93	-0.33	0.87
12,732.00	88.74	183.07	9,743.55	-6,351.55	-3,234.29	413.91	3,252.13	1.66	0.28	1.64
12,826.00	88.78	184.53	9,745.59	-6,353.59	-3,328.06	407.68	3,345.41	1.55	0.04	1.55
12,920.00	89.04	183.42	9,747.38	-6,355.38	-3,421.81	401.17	3,438.67	1.21	0.28	-1.18
13,015.00	89.06	181.69	9,748.95	-6,356.95	-3,516.70	396.93	3,533.18	1.82	0.02	-1.82
13,109.00	88.92	180.31	9,750.61	-6,358.61	-3,610.67	395.29	3,626.92	1.48	-0.15	-1.47
13,203.00	89.01	180.12	9,752.31	-6,360.31	-3,704.66	394.94	3,720.74	0.22	0.10	-0.20
13,297.00	88.91	179.86	9,754.01	-6,362.01	-3,798.64	394.96	3,814.59	0.30	-0.11	-0.28
13,391.00	89.02	178.73	9,755.71	-6,363.71	-3,892.62	396.11	3,908.49	1.21	0.12	-1.20
13,485.00	88.95	177.63	9,757.37	-6,365.37	-3,986.55	399.10	4,002.45	1.17	-0.07	-1.17
13,579.00	88.49	177.18	9,759.47	-6,367.47	-4,080.43	403.35	4,096.42	0.68	-0.49	-0.48
13,673.00	88.08	176.98	9,762.29	-6,370.29	-4,174.27	408.14	4,190.37	0.49	-0.44	-0.21
13,767.00	88.56	176.98	9,765.04	-6,373.04	-4,268.10	413.09	4,284.33	0.51	0.51	0.00
13,861.00	88.09	178.24	9,767.79	-6,375.79	-4,361.97	417.01	4,378.28	1.43	-0.50	1.34
13,956.00	88.54	179.99	9,770.59	-6,378.59	-4,456.92	418.47	4,473.16	1.90	0.47	1.84
14,050.00	88.40	180.20	9,773.09	-6,381.09	-4,550.88	418.32	4,566.98	0.27	-0.15	0.22

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPMENT	Local Co-ordinate Reference:	Well DUCK HUNT 1 STATE COM #301H
Project:	LEA COUNTY, NM (NAD 83 - UTM Zone 12N)	TVD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Site:	NE SE SEC. 1 T23S R34E	MD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Well:	DUCK HUNT 1 STATE COM #301H	North Reference:	True
Wellbore:	JOB # 2019-244-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,144.00	88.23	180.26	9,775.86	-6,383.86	-4,644.84	417.94	4,660.78	0.19	-0.18	0.06
14,238.00	88.82	180.11	9,778.28	-6,386.28	-4,738.81	417.64	4,754.59	0.65	0.63	-0.16
14,332.00	88.91	180.02	9,780.14	-6,388.14	-4,832.79	417.53	4,848.42	0.14	0.10	-0.10
14,426.00	88.89	180.27	9,781.95	-6,389.95	-4,926.77	417.29	4,942.25	0.27	-0.02	0.27
14,520.00	88.98	179.86	9,783.69	-6,391.69	-5,020.76	417.19	5,036.08	0.45	0.10	-0.44
14,614.00	88.80	179.70	9,785.51	-6,393.51	-5,114.74	417.55	5,129.94	0.26	-0.19	-0.17
14,708.00	89.96	179.75	9,786.53	-6,394.53	-5,208.73	418.00	5,223.82	1.24	1.23	0.05
14,803.00	89.96	179.81	9,786.60	-6,394.60	-5,303.73	418.36	5,318.69	0.06	0.00	0.06
14,896.00	90.20	179.58	9,786.47	-6,394.47	-5,396.73	418.86	5,411.58	0.36	0.26	-0.25
14,990.00	90.42	179.58	9,785.96	-6,393.96	-5,490.72	419.55	5,505.47	0.23	0.23	0.00
15,084.00	91.58	179.41	9,784.32	-6,392.32	-5,584.70	420.37	5,599.36	1.25	1.23	-0.18
15,178.00	90.60	179.23	9,782.53	-6,390.53	-5,678.68	421.49	5,693.25	1.06	-1.04	-0.19
15,272.00	89.85	179.66	9,782.16	-6,390.16	-5,772.67	422.40	5,787.15	0.92	-0.80	0.46
15,366.00	89.86	179.66	9,782.40	-6,390.40	-5,866.67	422.96	5,881.04	0.01	0.01	0.00
15,460.00	89.83	179.89	9,782.65	-6,390.65	-5,960.67	423.33	5,974.92	0.25	-0.03	0.24
15,554.00	89.83	179.39	9,782.93	-6,390.93	-6,054.67	423.92	6,068.81	0.53	0.00	-0.53
15,649.00	89.87	179.61	9,783.18	-6,391.18	-6,149.66	424.75	6,163.71	0.24	0.04	0.23
15,743.00	90.01	179.58	9,783.28	-6,391.28	-6,243.66	425.41	6,257.60	0.15	0.15	-0.03
15,837.00	89.89	179.70	9,783.36	-6,391.36	-6,337.66	426.00	6,351.49	0.18	-0.13	0.13
15,931.00	89.82	179.41	9,783.60	-6,391.60	-6,431.66	426.73	6,445.38	0.32	-0.07	-0.31
16,025.00	89.45	179.19	9,784.20	-6,392.20	-6,525.65	427.88	6,539.29	0.46	-0.39	-0.23
16,119.00	87.80	179.47	9,786.45	-6,394.45	-6,619.61	428.98	6,633.18	1.78	-1.76	0.30
16,213.00	88.86	179.91	9,789.19	-6,397.19	-6,713.57	429.49	6,727.02	1.22	1.13	0.47
16,307.00	89.40	180.17	9,790.62	-6,398.62	-6,807.56	429.42	6,820.86	0.64	0.57	0.28
16,401.00	89.28	179.50	9,791.70	-6,399.70	-6,901.55	429.69	6,914.73	0.72	-0.13	-0.71
16,495.00	89.16	179.14	9,792.98	-6,400.98	-6,995.53	430.81	7,008.63	0.40	-0.13	-0.38
16,589.00	89.43	179.58	9,794.14	-6,402.14	-7,089.52	431.86	7,102.54	0.55	0.29	0.47
16,683.00	89.45	179.32	9,795.06	-6,403.06	-7,183.51	432.76	7,196.44	0.28	0.02	-0.28
16,777.00	89.30	179.55	9,796.08	-6,404.08	-7,277.50	433.69	7,290.33	0.29	-0.16	0.24
16,871.00	89.28	179.42	9,797.25	-6,405.25	-7,371.49	434.53	7,384.23	0.14	-0.02	-0.14
16,966.00	89.45	179.33	9,798.30	-6,406.30	-7,466.48	435.57	7,479.13	0.20	0.18	-0.09
LAST SURVEY MAY 19, 2019										
16,996.00	89.39	179.20	9,798.60	-6,406.60	-7,496.47	435.95	7,509.10	0.48	-0.20	-0.43
EXTRAPOLATION TO TD										
17,029.00	89.39	179.20	9,798.96	-6,406.96	-7,529.47	436.41	7,542.07	0.00	0.00	0.00

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPMENT	Local Co-ordinate Reference:	Well DUCK HUNT 1 STATE COM #301H
Project:	LEA COUNTY, NM (NAD 83 - UTM Zone 12N)	TVD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Site:	NE SE SEC. 1 T23S R34E	MD Reference:	KB 26.5' @ 3392.00usft (H&P 650)
Well:	DUCK HUNT 1 STATE COM #301H	North Reference:	True
Wellbore:	JOB # 2019-244-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/BHL - DUCK HUI - survey misses target center by 65.79usft at 17021.16usft MD (9798.87 TVD, -7521.63 N, 436.30 E) - Point	0.00	0.00	9,860.50	-7,521.30	413.28	11,732,708.36	2,129,556.39	32.312142	-103.416279
KOP - DUCK HUNT 1 - survey misses target center by 17.70usft at 9202.34usft MD (9175.20 TVD, 2.75 N, 423.85 E) - Point	0.00	0.00	9,178.09	14.55	410.98	11,740,242.40	2,129,442.77	32.332855	-103.416287
PP/FTP - DUCK HUN - survey misses target center by 23.27usft at 10048.29usft MD (9732.27 TVD, -552.62 N, 424.65 E) - Point	0.00	0.00	9,750.98	-549.41	411.18	11,739,678.57	2,129,451.30	32.331305	-103.416286

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,053.00	3,051.75	-55.05	-2.95	START NUDGE
5,449.00	5,428.83	-15.10	286.08	9 5/8" INT CASING POINT
9,126.00	9,099.36	10.33	420.52	KOP
10,177.00	9,744.95	-680.61	423.29	HZ LANDING POINT
16,996.00	9,798.60	-7,496.47	435.95	LAST SURVEY MAY 19, 2019
17,029.00	9,798.96	-7,529.47	436.41	EXTRAPOLATION TO TD

Checked By: _____	Approved By: _____	Date: _____
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